**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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| In re application of | Docket No: Q64387 |
| Volkmar HEUER | |
| Appln. No.: 09/863,321 | Group Art Unit: 2661 |
| Confirmation No.: 1370 | Examiner: Tri H. PHAN |
| Filed: May 24, 2001 | |

For: A METHOD OF TRANSMITTING SYNCHRONOUS TRANSPORT MODULES VIA A SYNCHRONOUS TRANSPORT NETWORK

**REPLY BRIEF UNDER 37 C.F.R. § 41.41**

**MAIL STOP APPEAL BRIEF - PATENTS**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.41, Appellant respectfully submits this Reply Brief in response to the Examiner's Answer ("the Answer") dated July 13, 2007. Entry of this Reply Brief is respectfully requested.

## I. REAL PARTY IN INTEREST

The real party in interest is Alcatel Lucent.

## II. STATUS OF CLAIMS

Claims 1-10 are pending in the application.

In the final Office action, claims 1-3 were rejected under 35 USC 102(e) for anticipation by Wakim, claims 5-8 were rejected under 35 USC 103(a) as unpatentable over Wakim, claims 9 and 10 were rejected under 35 USC 103(a) as unpatentable over Wakim in view of Martin, and claim 4 was objected to as being dependent on a rejected claim but was otherwise allowable.

In the Examiner's Answer, the examiner has now indicated that claims 1-3 are still rejected for anticipation by Wakim, but that claims 9-10 are allowed and all of claims 4-8 are objected to only as being dependent on rejected claims but would otherwise be allowable.

## III. ARGUMENT

The only issue remaining on this appeal is the rejection of claims 1-3 for anticipation by Wakim.

In their Appeal Brief, appellants pointed out that in Wakim the path overhead is not terminated, but the transport overhead is terminated, and this is inconsistent with appealed claim 1 which requires that the unchanged overhead of a frame (described in claim 1 as the overhead of a frame, which is the same as the transport overhead) is transmitted as payload in a concatenation of newly formed multiplex units.

In responding to this argument in his Answer, the examiner has completely mis-interpreted col. 8, lines 32-35 of Wakim. It reads there that concatenated SDH containers will be mapped into SONET frames OC-12 or OC-48. An OC-12 is the same as an STM4 and an OC-48 is a STM16. However, the present invention requires that a frame structured signal is mapped into a newly formed concatenation of multiplex units, and not that a concatenation of multiplex units is mapped into a frame.

In the paragraph bridging page 5 and 6, the examiner argues that STM-N would be a "higher level concatenated signal". This is incorrect. STM-N (N=1, 4, 16, 64, but never 10) is simply a frame, not a concatenation of multiplex units. A STM4 can carry a concatenation such as a VC-4-4c. Hence a VC-4-4c can be mapped into a OC-12 frame and a higher level concatenated signal such as VC-4-16c can be mapped into a OC-48 frame.

In the middle of page 6, the examiner states that a VC-3 with its payload and overhead section are put together into the payload of STM-N. The STM-N is not a concatenation and therefore cannot be relied on to teach the disclosed feature of the unchanged overhead of a frame being transmitted as payload in a concatenation of newly formed multiplex units.

On page 8, last paragraph, the examiner goes on to state that a VC-3 ("frame") is mapped into a VC-4 then into a STM4 - or any higher level of concatenated virtual container. This is also incorrect. A VC-3 will never be mapped into a concatenation, and Wakim does not suggest anything different. A concatenation is used when the capacity of the largest existing virtual container VC-4 is too small. This means necessarily that the signal to be transported is of larger capacity than the payload of the VC-4. No mapping exists for VC-3 -> VC-4-nc. Thus, even if the examiner were correct in his interpretation of "frame structured multiplex signal" - a VC-3 will never be mapped into a concatenation of multiplex units as claimed. Concatenation is explained in ITU-T G.707 chapter 11: "For the transport of payloads that do not fit efficiently into the standard set of virtual containers (VC3/4/2/12/11) VC concatenation can be used."

Moreover, the VC-3 is not a frame structured multiplex signal. Figure 2 of Wakim shows signal "blocks" that simply do not exist in real life. This is just a simplified logical representation. Consider the following figures from ITU-T G.707:

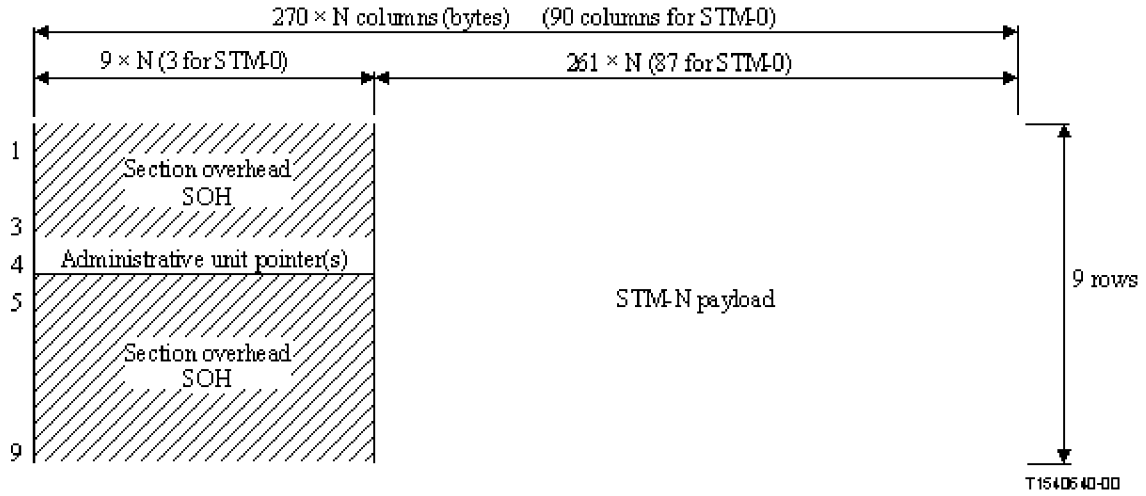
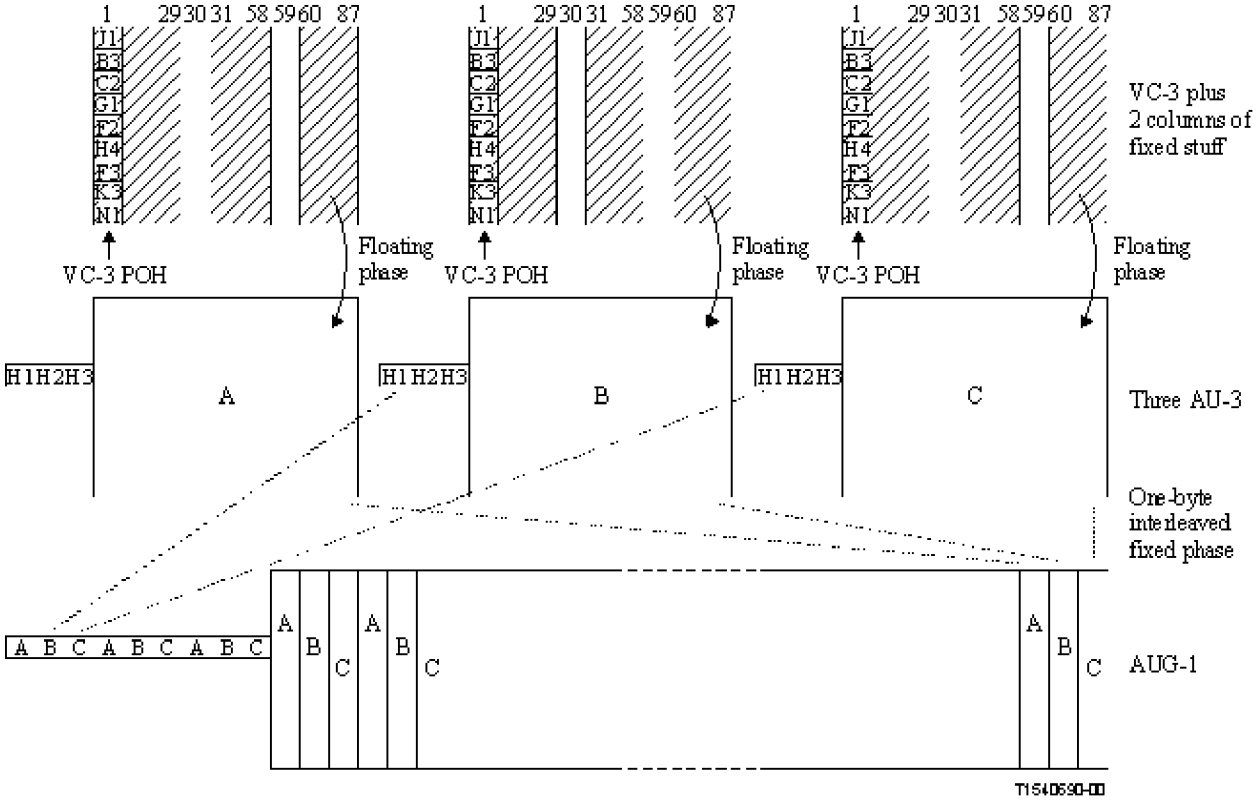



Figure 6-6/G.707/Y.1322 – STM-N frame structure

This is a frame. It is transmitted from left to right and one column after the other. One frame is followed by the next. Therefore, if you transmit STM-N, then this is a frame structured multiplex signal. Figures 6-7 and 6-8 show how the multiplexing of multiplex units in the STM-N frame in a logical representation. Figure 7-4 shows multiplexing of AU-3s via AUG-1:




NOTE – The byte in each row of the two columns of fixed stuff of each AU-3 shall be the same.

It can be observed that a VC-3 would just occupy a series of non-contiguous time slots in a frame structured multiplex signal. In Wakim, the multiplexing would be via VC-4 which means a difference with respect to the pointers. The pointer H1H1H1H2H2H2H3H3H3 would point to the J1 byte of the VC-4 and the VC-4 would then contain three pointers to the three VC-3. This is not foreseen in G-707 because this would neither be used in SDH nor in SONET but is the "interworking funtion" described by Wakim. Anyway, it makes no real difference when you look for the relevant VC-3 bytes in the signal - these are more or less evenly distributed over the signal, but do not form a frame structured signal themself.

For the above reasons, it is submitted that the subject matter of claims 1-3 is not taught in Wakim, and reversal of the rejection of claims 1-3 is requested.

Respectfully submitted,

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